



**The REEL Hemp programme** aims to train farmers on sustainable hemp cultivation and create a market for sustainable REEL hemp fibre. Hemp is grown specifically for industrial or medicinal use and can be used to make a wide range of products.

## OBJECTIVE

CottonConnect's REEL Cotton programme, a three-year agricultural programme providing farmers with training on sustainable cotton farming practices, has been successful in increasing yield and profit, while reducing the use of water and chemical inputs.

CottonConnect wanted to assess whether the results could be replicated for other agricultural crops, and so conducted a pilot in 2018-19 with 100 farmers growing hemp in Qinggang County, Heilongjiang Province in China.

## IMPACT

An impact assessment was undertaken to determine the trend after the first year of training. 10 farmers who did not receive the training were assessed as a control measure. The focus for the first year analysis was on yield, use of chemical fertilisers and pesticides, and input costs and profitability.

As a result of the implementation of sustainable agricultural practices, in comparison with the control farmers, the farmers in the hemp programme reported:

## PILOT PROJECT

The one year project pilot started with a kick-off meeting and training programme in April 2018, in the training centre of the local Agricultural Technology Extension Centre. The learnings since then have been fed into the development of the REEL Linen Code and applicable for other bast fibres like hemp too. Topics included project introduction, seed selection, field selection, nutrition management, and how to conduct field inspection at the early growing stage. In addition to in-room training, there were field demonstrations, enabling farmers to learn, ask questions, and share learnings. In November 2018, a farmer convention was held to conclude the hemp training, with farmers sharing their experiences and market information.

## BENEFITS OF HEMP

- Only requires 90 - 120 days to grow
- Totally biodegradable, environment friendly and durable material
- 2,300 liters of water required for 1 kg fiber
- Needs very little or no chemical additives to grow
- Naturally resistant to pests and destroys weeds
- It can be grown on every continent besides Antarctica
- It can save trees from deforestation

## REEL HEMP IMPACT RESULTS 2018-19



Boosted profits by  
**34.9%**



Increased yields by  
**7.9%**



Cut input costs by  
**2%**



Reduced fertiliser use by  
**16.5%**



83% of the project farmers dedicate more than 60% of the land to hemp farming. This means that hemp is their major crop and is the primary source of income compared with other crops. Therefore, a 7.9% increase in yield, and 34.9% increase in profit for hemp, has a significant and positive impact on their overall income.



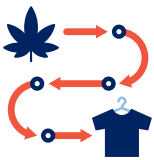
As part of the REEL Hemp project, farmers conducted soil testing and were provided with recommendations on optimized fertilizer usage. As a result, the project farmers used 16.5% less fertilizers than the control farmers. Overall, the project farmers' input costs were reduced by 2%, with fertilizer costs reduced by 18.2% and labour costs reduced by 15.7%.



The impact on biodiversity, carbon footprinting and soil fertility on the farm land will be part of the monitoring and evaluation plan for the programme.



The programme analysis shows that the training in the REEL Hemp programme has generated positive socio-economic and environmental impact. CottonConnect invites brands to consider introducing the REEL programme for additional crops in their supply chains.



### TRACEABILITY

CottonConnect works with global brands and manufacturers to run sustainable hemp programmes, and the hemp grown by these farmers, including REEL Hemp, is traceable via TraceBale (CottonConnect's bespoke, proprietary traceability software tool which provides dynamic and potentially real time source information and chain of custody of any apparel product produced in a CottonConnect's supply chain) all the way up to the final product.



Traceability through TraceBale starts from the farm, where the field officers record all the vital information about farmer, farm, and the cropping pattern and can be fed with data from farmers, ginners, spinners, scutchers and other processors in the chain.

To download the REEL Hemp code, visit:

[www.cottonconnect.org/sustainable-practices](http://www.cottonconnect.org/sustainable-practices)



*"There is a growing trend for alternative, natural fibres including bast fibres. In particular, we are seeing more hemp cotton blends, and we are therefore developing the REEL programme for sustainable hemp production."*

said Wenxiang Liu, Operations and Innovation Director, China, CottonConnect.



CottonConnect is a company with a social purpose to reimagine the cotton supply chains and help textile producers and farmers enjoy better livelihoods.

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